

REMARKS

With this amendment claims 14 and 15 have been amended to clarify the invention, claims 16-19, 22, 24, and 83-94 have been canceled without prejudice, and new claims 95-132 have been added. Thus, upon entry of the present amendment, claims 14, 15, 20, 21, 23, 25-27, 43-82, and 95-132 will be pending, with claims 14, 15, 20, 21, 23, 25-27, 43, 44, 55-60, 63-82, and 95-132 under consideration.

Claim 14 has been amended to incorporate the limitations of claims 16, 22, and 24. Claim 15 has been amended to incorporate the limitations of claims 17, 91, and 93. Accordingly, claims 16, 17, 22, 24, 91, and 93 have been canceled without prejudice. In claims 14 and 15 as amended, $P(H_0^-)$ is the chance that a cellular constituent is not *down*-regulated as set forth in equation 6 on page 17 of the specification.

New claim 95 is supported by Section 5.3 of the specification and, in particular, equation 7 on page 18 of the specification. New claims 96 and 97 are supported by page 12, lines 17-24, of the specification. New claim 98 is supported by equations 8, 9, and 10 of the specification. New claim 99 is supported by page 17, lines 8-9, of the specification. New claim 100 is supported by page 12, lines 9-16, of the specification. New claims 101 through 106 are supported by the description of “perturbation” beginning on page 8 of the specification. New claims 107 through 110 are supported by the description of biological system beginning on page 9 of the specification. New claims 111 and 112 are supported by page 12, lines 9-16, of the specification.

New claim 113 is supported by Section 5.3 of the specification and, in particular, equation 7.1 on page 19 of the specification. New claims 114 and 115 are supported by page 12, lines 17-24, of the specification. New claim 116 is supported by equations 8, 9, and 10 of the specification. New claim 117 is supported by page 17, lines 8-9, of the specification. New claim 118 is supported by page 12, lines 9-13, of the specification. New claims 119 through 124 are supported by the description of “perturbation” beginning on page 8 of the specification. New claims 125 through 128 are supported by the description of biological system beginning on page 9 of the specification. New claims 129 and 130 are supported by page 12, lines 9-16, of the specification.

New claims 131 and 132 are supported by Section 5.3 of the specification and, in particular, Equations 8, 9, and 10 on pages 20 and 21 of the specification.

In addition to the claim amendments, certain typographical errors have been corrected in the specification. In addition, the priority information in the first paragraph of the specification has been updated to reflect that United States Application No. 09/222,596, filed December 28,

1998, is now U.S. Patent No. 6,351,712 B1. Accordingly, no new matter has been entered by way of the amendments to the claims and the specification.

The First Lack of Scope of Enablement Rejection Should be Withdrawn

The Examiner has rejected claims 14, 15, 20-27, 43, 44, 55-60, 63-82, and 87-94 under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not provide a generic enablement error distribution statistic. The Examiner does note, however, that the specification does set forth a specific error distribution statistic on pages 17-19 of the specification. Further, the Examiner does note that claim 16 recites a specific error distribution statistic. Applicants note that claim 17 recites the same error distribution statistic as claim 16. With respect to claims 22, 24, and 87-94, the rejection is moot because Applicants have canceled these claims without prejudice. Thus, the rejection applies to claims 14, 15, 20, 21, 23, 25-27, 43, 44, 55-60, and 63-82.

Applicants have responded to the rejection by incorporating the error distribution statistic limitations recited in claim 16 into claim 14 and canceling claim 16 without prejudice. Applicants have further responded to the rejection by incorporating the error distribution statistic limitations recited in claim 17 into claim 15 and canceling claim 17 without prejudice. Claims 14 and 15, as amended, recite an error distribution statistic described in pages 17-19 of Applicants' specification. Each of the remaining rejected claims depends from claim 14 or claim 15. Applicants therefore respectfully request that the first 35 U.S.C. § 112, first paragraph, rejection made in the September 29, 2004 Office Action be withdrawn.

The Second Lack of Scope of Enablement Rejection Should be Withdrawn

The Examiner has rejected claims 14-27, 43, 44, 55-60, and 63-94 under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not provide enablement for a generic rank based method. The Examiner does note, however, that claim 22 and claim 24 do recite specific rank based methods. The rank based methods recited in claim 22 and claim 24 are set forth on page 17 of the specification as equations 5 and 6. Applicants note that these same rank based methods are recited in claims 91 and 93. With respect to claims 16-19, 22, 24, and 83-94, the rejection is moot because Applicants have canceled these claims without prejudice. Thus, the rejection applies to claims 14, 15, 20, 21, 23, 25-27, 43, 44, 55-60, and 63-82.

Applicants have responded to the rejection by incorporating specific rank based methods into both claims 14 and 15. Specifically, the rank based methods recited in claims 22 and 24

were incorporated into claim 14. Claims 22 and 24 were canceled without prejudice. Similarly, the rank based methods of claims 91 and 93 were incorporated into claim 15, and claims 91 and 93 were canceled without prejudice. In claims 14 and 15, as amended, $P(H_0^-)$ is the chance that a cellular constituent is not *down*-regulated as set forth in equation 6 on page 17 of the specification.

Each of the remaining rejected claims depends from claim 14 or 15. Thus, the amendments to claims 14 and 15 limit the scope of these remaining rejected claims to the specific rank based methods positively recited in claims 14 and 15. Accordingly, Applicants respectfully request that the second 35 U.S.C. § 112, first paragraph, rejection made in the September 29, 2004 Office Action be withdrawn.

CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application. Applicants believe that each ground for rejection has been successfully overcome or obviated, and that all the pending claims are in condition for allowance. Withdrawal of the Examiner's rejections and allowance of the application are respectfully requested.

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Respectfully submitted,

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